

## ABSTRACT

The present invention provides an angle detection apparatus that permits to make accurate angle  
5 detection for a magnetic field, regardless of a simple circuit configuration and an angle detection system for detecting an angle of the magnetic field.

Reference character HE denotes Hall elements; 2 an XY switching unit; 4 a modulation/drive unit; 6 a DDA; 8

10 a P-to-P detection unit; 10 and 12 S/H units; 14 a post-processing circuit; 16 an S/H unit; 18 a held component designation circuit; 20 an X and Y designation input unit; and 22 an operational  
15 amplifier. According to this angle detection apparatus, it becomes possible to directly calculate  $\tan \theta$  from an X component held in the S/H unit (10) and a Y component held in the S/H unit (12) without applying individual arithmetic processing to calculate  $\sin \theta$  and  $\cos \theta$  and further calculate  $\tan \theta$ .

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